

## CLAIMS:

1. A tracking method for tracking a sensor in a capture range in a field generated by a field generator, the method comprising the steps of: (a) generating a field by means of the field generator for defining the capture range; (b) identifying a region of interest including the sensor within the capture range; (c) narrowing the capture range  
5 by narrowing the field by means of the field generator; (d) iteratively repeating steps (a) to (c).
2. The method of claim 1, wherein the field generator is a magnetic field generator and emits a magnetic field, wherein the magnetic field generator comprises at  
10 least one coil, further comprising the step of: adjusting a position of the at least one coil in the field generator for narrowing the capture range such that at least one of a size and shape of the capture range is reduced.
3. The method of claim 1, further comprising the step of displacing the field  
15 generator for narrowing the capture range.
4. The method of claim 1, wherein the field generator is a magnetic field generator and emits a magnetic field, wherein the magnetic field generator comprises at least one coil, further comprising the step of: adjusting an orientation of the at least one  
20 coil in the field generator for narrowing the capture range such that a location of the capture range is adjusted.
5. A tracking system for tracking a sensor in a capture range in a field generated by a field generator, wherein the field generator is adapted to adjust at least  
25 one of a size, direction and orientation of the capture range.

6. The tracking system of claim 5, wherein the field generator is a magnetic field generator and emits a magnetic field; wherein the magnetic field generator comprises at least one coil; and wherein a position of the at least one coil in the field generator is adjustable for narrowing the capture range such that at least one of a size  
5 and shape of the capture range is reduced.

7. The tracking system of claim 5, wherein the field generator is movable for narrowing the capture range.

10 8. The tracking system of claim 5, wherein the field generator is a magnetic field generator and emits a magnetic field; wherein the magnetic field generator comprises at least one coil; and wherein an orientation of the at least one coil in the field generator is adjustable for narrowing the capture range such that a location of the capture range is adjusted.

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9. A computer program product comprising computer program code means to perform the following steps when the computer program is executed on a computerized tracking system: (a) generating a field by means of the field generator for defining the capture range; (b) identifying a region of interest including the sensor  
20 within the capture range; (c) narrowing the capture range by narrowing the field by means of the field generator to the region of interest; (d) iteratively repeating steps (a) to (c).